

REMARKS

Applicants are submitting this Amendment in response to the Final Office Action dated October 24, 2008, and in conjunction with the enclosed Request for Continued Examination. Claims 13 to 15, 19, 20, 25, and 26 are pending in this application and Claims 13 to 15, 19, 20, 26, and 26 are rejected. Applicants have amended Claim 13. Applicants have added new Claim 27. No new matter has been added by these amendments or the new claim. Claims 1 to 12, and 16 to 18 stand previously cancelled. Claims 21 to 24 stand previously withdrawn.

As noted above, Applicants have filed a Request for Continued Examination with this Response. Accordingly, Applicants request that the Examiner provide an upcoming Office Action which will “. . . identify any claims which he or she judges, as presently recited, to be allowable and/or . . . suggest any way in which he or she considers that rejected claims may be amended to make them allowable” in accordance with §707.07(d) of the MPEP.

Claim Rejections Under 35 U.S.C. §103

The Office Action rejected Claims 13 to 15, and 19 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,976,725 to Gamo et al. (“Gamo”) in view of U.S. Patent Application Publication No. 2002/011335 to Zhang et al (“Zhang”). Applicants respectfully submit that Claim 13 has been amended to traverse these rejections.

Amended independent Claim 13 now reads, in part: “an electric power supply means for supplying electric power to a predetermined drive section of said plurality of drive sections, wherein said predetermined drive section has a larger load variation than those of the other drive sections of said plurality of drive sections, wherein while said electric power supply means supplies electric power to said predetermined drive section, said fuel cell supplies electric power to drive sections of said plurality of drive sections other than said predetermined drive section.” These amendments are fully supported by the specification. For example, paragraph [0060] of the published patent application states: “since the secondary cell 112 can be charged from the fuel cell 111 when the various electric appliances are not being driven, the secondary cell 112 functions as an electric power supply means for accumulating electrical energy and thereafter supplying electric power to the drive units required.”

The cited art does not disclose or suggest a fuel cell mount apparatus which includes, among other elements, an electric power supply means for supplying electric power to a predetermined drive section of a plurality of drive sections, wherein the predetermined drive section has a larger load variation than those of the other drive sections of the plurality of drive sections, wherein while the electric power supply means supplies electric power to the predetermined drive section, the fuel cell supplies electric power to drive sections of the plurality of drive sections other than the predetermined drive section. Page 4 of the Office Action acknowledged that “Gamo is silent with regard to an electric power supply means for supplying electric power to a predetermined drive section of said plurality of drive sections.” The Office Action relied on Zhang for disclosure of a hybrid power system comprising a fuel cell (802) and a battery (804)” Paragraph [0078] of Zhang states that the fuel cell and the rechargeable battery are “electrically connected to provide power across a load 806” and that the “rechargeable batteries (804) can be charged by the fuel cell (802) during the average power consumption periods and can be used to boost the output power during the high power consumption periods.”

The Office Action appears to have interpreted the load of Zhang to be the plurality of drive sections of Claim 13. However, Applicants submit that under the Office Action’s interpretation, Zhang does not disclose or suggest a predetermined drive section of the plurality of drive sections, wherein the predetermined drive section has a larger load variation than those of the other drive sections of the plurality of drive sections. That is, even if Zhang discloses a load having average and peak power requirements, and even if the load of Zhang includes a plurality of loads, Zhang does not disclose or suggest a predetermined load of the plurality of loads, the predetermined load having larger power requirement variations than the other loads of the plurality of loads.

Furthermore, Zhang discloses only that the fuel cell and rechargeable battery of Zhang are electrically connected to provide (via either the fuel cell or the fuel cell in combination with the rechargeable battery) power to the plurality of loads. Zhang does not disclose or suggest that while the electric power supply means (interpreted as the rechargeable battery of Zhang) supplies electric power to the predetermined drive section, the fuel cell supplies electric power to drive sections of the plurality of drive sections other than the predetermined drive section. That is, Zhang does not disclose or suggest providing electric power to a predetermined load of the

plurality of loads with the rechargeable battery of Zhang, and simultaneously providing power to the other loads of the plurality of loads with the fuel cell of Zhang.

Therefore, unlike the fuel cell mount apparatus of amended independent Claim 13, Gamo and Zhang, alone or in combination, do not disclose or suggest a fuel cell mount apparatus which includes, among other elements, an electric power supply means for supplying electric power to a predetermined drive section of a plurality of drive sections, wherein the predetermined drive section has a larger load variation than those of the other drive sections of the plurality of drive sections, wherein while the electric power supply means supplies electric power to the predetermined drive section, the fuel cell supplies electric power to drive sections of the plurality of drive sections other than the predetermined drive section. Moreover, it would not have been obvious to a person having ordinary skill in the art to modify the cited references to include these features without reasonably being construed as impermissible hindsight reasoning.

For at least these reasons, Applicants respectfully submit that amended independent Claim 13 is in patentably distinguished over Gamo in combination with Zhang, and is in condition for allowance.

Claims 12 to 15, and 19 depend directly from amended independent Claim 13 and are allowable for similar reasons, and because of the additional features recited in these claims.

The Office Action rejected Claims 13 to 15, 19, 25, and 26 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,421,585 to Takamura ("Takamura") in view of Gamo and Zhang. Applicants respectfully disagree with, and traverse, certain of these rejections. Nevertheless, Applicants submit that the amendments to Claim 13 overcome these rejections.

As stated above, Gamo and Zhang, alone or in combination, fail to disclose or suggest all of the elements of amended independent Claim 13. Takamura does not cure the deficiencies of Gamo and Zhang. The Office Action stated that "Takamura discloses an electronic apparatus 1 having a battery 21 mounted thereon and being operated by electric power outputted from said battery". The Office Action also stated that Takamura discloses a plurality of drive sections. However, Takamura discloses only that a single power supply supplies electric power to the plurality of drive sections.

Therefore, unlike the fuel cell mount apparatus of amended independent Claim 13, Takamura, Gamo, and Zhang, alone or in combination, do not disclose or suggest a fuel cell mount apparatus which includes, among other elements, an electric power supply means for supplying electric power to a predetermined drive section of a plurality of drive sections, wherein the predetermined drive section has a larger load variation than those of the other drive sections of the plurality of drive sections, and while the electric power supply means supplies electric power to the predetermined drive section, the fuel cell supplies electric power to drive sections of the plurality of drive sections other than the predetermined drive section. As discussed above, Gamo and Zhang do not cure the deficiencies of Takamura. Moreover, it would not have been obvious to a person having ordinary skill in the art to modify the cited references to include these features without reasonably being construed as impermissible hindsight reasoning.

For at least these reasons, Applicants respectfully submit that amended independent Claim 13 is in patently distinguished over Takamura in combination with Gamo and Zhang, and is in condition for allowance.

Claims 12 to 15, 19, 25, and 26 each depend directly or indirectly from amended independent Claim 13 and are allowable for similar reasons, and because of the additional features recited in these claims.

The Office Action rejected Claim 20 under 35 U.S.C. §103(a) as being unpatentable over Takamura in view of Gamo and Zhang, and further in view of U.S. Patent No. 6,522,096 to Roth ("Roth"). Applicants respectfully submit that the amendments to Claim 13 (from which Claim 20 directly depends) overcome this rejection.

For similar reasons as given above with respect to amended Claim 13, Applicants submit that regardless of whether it would have been obvious to modify Takamura with Gamo, Zhang, and Roth, these references, alone or in combination, do not disclose or suggest a fuel cell mount apparatus which includes, among other elements, an electric power supply means for supplying electric power to a predetermined drive section of a plurality of drive sections, wherein the predetermined drive section has a larger load variation than those of the other drive sections of the plurality of drive sections, wherein while the electric power supply means supplies electric

power to the predetermined drive section, the fuel cell supplies electric power to drive sections of the plurality of drive sections other than the predetermined drive section.

For at least these reasons, Applicants respectfully submit that Claim 20 is in patently distinguished over Takamura in combination with Gamo, Zhang, and Roth, and is in condition for allowance.

New Claim 27 recites: "The fuel mount apparatus of claim 13, wherein said predetermined drive section is a control unit shared by said fuel cell and said electronic apparatus." This claim is fully supported by the specification. For example, paragraph [0056] of the published patent application reads:

The control unit 81 used in common together with the electronic apparatus control unit is a control unit for the dog type robot and, simultaneously, is a drive unit which is driven by electric power in the same manner as the drive motors contained in the joint portions described above. The control unit 81 is driven by being supplied with electric power from a secondary cell 100 such as a lithium ion secondary cell provided in the vicinity of the control unit 81. In other words, the drive units possessed by the electronic apparatus such as the dog type robot 91 in this embodiment are classified into drive units such as joint portions moved by the drive motors and drive units such as the electronic apparatus control unit used in common together with the control unit 81. Comparing the load variation in the drive motors with the load variation in the control unit 81, generally, the load variation in the control unit 81 including the microcomputer tends to be larger than the load variations in the drive motors. Specifically, in the drive unit such as the drive motor, there is little load variation after the electric power necessary for starting the driving is supplied. In other words, in a diagram in which the time of driving of the drive motor is taken on the axis of abscissas and the magnitude of load is taken on the axis of ordinates, the magnitude of load varies in a roughly rectangular shape with reference to the time axis.

Therefore, For at least similar reasons as given above with respect to amended independent Claim 13, Claim 27 is patently distinguished over the cited references and is condition for allowance.

Accordingly, Applicants respectfully submit that the present application is in condition for allowance.

The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing.

Respectfully submitted,

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